

VI.—SOME SPIDERS AND MITES FROM THE BERMUDA ISLANDS.  
BY NATHAN BANKS.

THE following pages contain a list of some spiders and mites collected in the Bermudas by Prof. A. E. Verrill and some of his assistants. Most of them were gathered the past spring, 1901.\*

Several of the spiders are immature, so that they cannot be fully determined. Three of the spiders are described as new. There are twenty-eight spiders in the list, which is more than twice as large as any previous list. They are distributed in sixteen families; the Theridiidae, with six species, leads in point of numbers; eleven families are represented by but one species.

John Blackwall recorded six species of spiders from the Bermudas in 1868.† They are as follows:

1. *Loxosceles rufescens* Lucas. +
2. *Epeira gracilipes* Blackw. +
3. *Thomisus pallens* Blackw. +
4. *Salticus diversus* Blackw.
5. *Heteropoda venatoria* Linn.
6. *Filistata depressa* Koch.

His *Epeira gracilipes*, which was originally described from Rio Janeiro, is probably the common *Epeira theisii* Walek. The *Filistata depressa* is the same as *F. hibernalis* Hentz; while his *Salticus diversus* is a synonym of *Plexippus paykulli* Aud. and Sav.

In 1889, Dr. George Marx reported on the spiders collected in the Bermudas by Prof. Angelo Heilprin.‡

He had twelve species, as follows:

1. *Uloborus zosis* Walek.
2. *Nephila clavipes* Koch.
3. *Cyclosa caudata* Hentz.
4. *Epeira labyrinthica* Hentz. +
5. *Theridium tepidariorum* Koch.

\* These collections were made in April and May, 1898, and from March 10th to May 9, 1901. Probably many other species could be found in summer and autumn.—A. E. V.

† Notice of several species of Spiders supposed to be new or little known to Arachnologists. Ann. Mag. Nat. Hist. (4), ii, 1868, pp. 403-410.

‡ A contribution to the knowledge of the spider fauna of the Bermuda Islands, Proc. Acad. Nat. Sci., Philad., 1889, pp. 98-101, one plate. Heilprin's collection was made in midsummer. Prof. Verrill's in the spring. This may account for part of the difference.

6. *Argyrodes nephilæ* Tacz. +
7. *Pholcus tipuloides* Koch.
8. *Dysdera crocata* Koch.
9. *Plexippus paykulli* Aud.
10. *Tapinattus melanognathus* Lucas.
11. *Heteropoda venatoria* Linn.
12. *Lycosa atlantica* Marx.

Although in the present list there are many more species than in these two together, there are five species in these lists (indicated by +) which do not appear in the collections of Prof. Verrill. Adding these to the present list, we have a total of 33 spiders known from the Bermudas.

Three of Blackwall's list he considered new; the other three do not show anything as to the affinities of the fauna. Of Dr. Marx's twelve species, ten are found in the Southern United States, but most of these are widely distributed in the neotropical region. The present list will not uphold this affinity to the mainland, but indicates a relationship with the West Indian fauna.

Although Blackwall described three new species in his list, Dr. Marx one in his, and the writer three in this list, it is quite improbable that any of the species are peculiar to the islands; two of those here described are known to me from Hayti, and elsewhere in the West Indies.

#### FILISTATIDÆ.

*Filistata hibernalis* Hentz. Large Brown Spider.

*Filistata hibernalis* Hentz, Journ. Bost. Soc. Nat. Hist., iv, 227, pl. vii, fig. 6, 1842.

Several specimens; a male from Walsingham, May 5; one specimen from Tucker's Island, 3 May, under stones. Known from the Southern United States, Mexico, Central America, and the West Indies. Nos. 2321, 2322, 2324, 2331-33.

#### SCYTODIDÆ.

*Scytodes longipes* Lucas.

*Scytodes longipes* Lucas, Ann. Soc. Ent. France, 1845, p. 71, pl. i, fig. 1.

Three specimens; a male from mouth of Tucker's Island cave, 3 May. Known from northern South America, Central America, and West Indies. Two specimens collected by Mr. T. G. Goslin in summer. Nos. 2319, 2343, 2360, 2408.

*Scytodes fusca* Walckenaer.

*Scytodes fusca* Walck., Aptères, i. p. 272, 1837.

One specimen from the entrance of Tucker's Island cave, 3 May.  
Distribution like that of the preceding species. Nos. 2355.

### DYSDERIDÆ.

*Dysdera crocata* Koch.

*Dysdera crocata* Koch, Die Arach., v, p. 81, pl. clxvi, figs. 392, 393, 394, 1839.

Several specimens, one from Walsingham, 3 May, common under stones. Occurs in Europe and the Eastern United States. Nos. 2308, 2347.

### OONOPIDÆ.

*Oönops bermudensis*, sp. nov.

Cephalothorax, mandibles, sternum and legs pale yellow, the femora paler on bases, eyes on black spots; abdomen pale gray. Cephalothorax clothed with scattered black hair; central eyes short

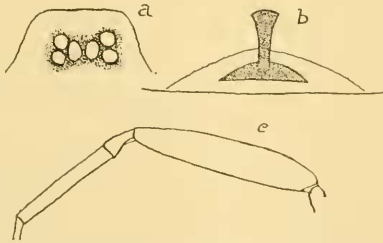


Figure 1.—*Oönops bermudensis*; a, eyes; b, epigynum; c, hind leg.

elliptical, touching; lateral eyes round, equal, their point of touching opposite the middle of the central eyes; the eye-area plainly broader than long. Legs with black hair and reddish spines, quite long and slender, hind femora thickened and reaching the posterior third of the abdomen. Palpi with many short stout spines and a pair of longer spines under the bases of the tibia and tarsus. Abdomen once and two-thirds longer than broad; epigynum shows a transverse crescentic mark and from the middle in front is a clavate extension.

Length, 2<sup>mm</sup>. No. 2340.

One specimen from the Bermudas, without more definite locality.

**DRASSIDÆ.**

**Callilepis**, sp.

One immature specimen of a dark-colored species, from mouth of Tucker's Island cave, 3 May. No. 2356.

**CLUBIONIDÆ.**

**Corinna**, sp.

Several immature specimens from Hungry Bay, April. No. 2334.

**Hypsinothus**, sp.

An immature specimen, very close to, and perhaps identical with *H. pumilis* Keys., from Porto Rico. No. 2309.

**Anyphæna Verrilli**, sp. nov.

Cephalothorax pale yellowish, darker in front, the clypeus and mandibles red-brown; sternum yellowish; legs pale, more red-brown on metatarsi and tarsi, especially of the anterior pairs. Abdomen above and below pale, above with many rows of darker hairs. The cephalothorax is rather short and broad; the A. M. E.



Figure 2.—*Anyphæna Verrilli*, epigynum.

scarcely diameter apart, rather closer to the equal A. S. E.; P. M. E. somewhat larger, nearly twice their diameter apart and about as far from the nearly equal P. S. E. Posterior eye-row strongly procurved, longer than the anterior eye-row. Mandibles rather large and hairy, but not porrect nor divergent, a little longer than the patella of leg I.

Legs of moderate length, and quite densely spined. Ventral furrow about three-fourths the distance from the spinnerets to the lung-slits; abdomen about twice as long as broad, truncate at base.

Length ♀, 8.5mm.

One specimen from Walsingham, 3 May, 1901. I have also seen specimens from parts of the West Indies. No. 2346.

**Eutichurus insulanus**, sp. nov.

Cephalothorax dull brownish yellow, eyes on black spots; mandibles red-brown; sternum brownish yellow; legs pale greenish; abdomen pale gray, rather darker above than below, blackish around the spinnerets, the latter pale. The cephalothorax is rather

low and quite broad in front. The mandibles are large and gibbous above at base, plainly divergent, in front with many small granules from each of which arises a bristle. Posterior eye-row straight, a little longer than the anterior; all eyes sub-equal. A. M. E. less than their diameter apart, and as close to the equal A. S. E.; P. M. E. once and one-half their diameter apart, about diameter from the equal P. S. E.



Figure 3.—*Eutichurus insulanus*; epigynum.

Legs moderately long, very hairy, with a few weak spines; two pairs under the tibiae and metatarsi I and II; tibiae III and IV below with one spine near base, one near middle, and a pair at tip, these metatarsi with three pairs below. Abdomen about once and three-fourths as long as broad, broadest behind the middle, rounded at base and tip, convex above; the superior spinnerets long, two-jointed, the apical joint tapering and as long as the basal; epigynum shows two oblique, elliptical openings, some distance apart.

Length ♀, 5.5<sup>mm</sup>. No. 2362.

One female from the Bermudas (without more definite locality) collected by W. G. Van Name, in May. It occurs also in Hayti.

#### DICTYNIDÆ.

*Dictyna*, sp.

One young specimen, without particular locality. No. 2367.

#### AGALENIDÆ.

*Tegenaria derhami* Scopoli.

*Araneus derhami* Scop., Entom. Carnioli., p. 400, 1763.

*Tegenaria derhami* Emerton, Trans. Conn. Acad., viii, p. 29, pl. vii, figs. 6, 6c; 1890.

Several specimens; one from Walsingham, 3 May; another preyed upon by *Plexippus paykulli*, 20 April. It is a cosmopolitan spider. Nos. 2326, 2327.

#### PHOLCIDÆ.

*Pholcus tipuloides* Koch.

*Pholcus tipuloides* Koch, Die Arachn. Australiens. p. 281, 1871.

*Pholcus tipuloides* Marx, Proc. Phil. Acad. Nat. Sci., 1889, p. 99, pl. iv, fig. 5.

Several specimens, some from Tucker's Island cave, 3 May. (It occurred at and within the entrance of the cave in considerable numbers.—A. E. V.). A cosmopolitan species. Nos. 2315, 2316, 2320, 2361, 2409.

**THERIDIIDÆ.**

***Theridium tepidariorum* Koch.**

*Theridium tepidariorum* Koch, Die Arach., viii, p. 75, figs. 647, 648, 1841.

*Theridium tepidariorum* Emer., Trans. Conn. Acad., vi, p. 13, pl. ii, fig. 1, 1882.

Four specimens collected by Mr. T. G. Goslin in summer. Nos. 2401, 2407. It is found in houses throughout the civilized world.

***Theridium studiosum* Hentz.**

*Theridium studiosum* Hentz, Journ. Bost. Soc. Nat. Hist., vi, p. 274, pl. ix, fig. 5, 1850.

Two females from Walsingham, 3 May. Occurs in the Southern States, and Mexico. No. 2349.

***Theridium rufipes* Lucas.**

*Theridium rufipes* Lucas, Explor. de l'Algérie, Arachn., p. 263, pl. xvi, fig. 5, 1847.

One specimen, male, from mouth of Tucker's Island cave, 3 May. A common cosmopolitan spider. No. 2354.

***Lathrodectus geometricus* Koch.**

*Lathrodectus geometricus* Koch, Die Arachn., viii, p. 117, pl. cclxxxiv, fig. 684, 1841.

Several examples; a pair from Paynters' Vale, 28 April; two females have their egg-cocoons. Known from South America, and the West Indies. Nos. 2323, 2352, 2353, 2363.

***Bathyphantes*, sp.**

Two specimens, both immature; the sternum and venter are black, the dorsum of abdomen dark gray with a black herring-bone mark, legs pale, cephalothorax yellowish. No. 2338.

***Erigone*, sp.**

One female, immature, abdomen and sternum black, mandibles rather prominent and diverging. No. 2335.

ULOBORIDÆ.

**Uloborus geniculatus** Olivier.

*Araneus geniculatus* Oliv., Ency. Meth., ii, p. 214, 1789.

*Uloborus zosis* Walck., Aptères, ii, p. 231, 1842.

*Uloborus zosis* Marx, Proc. Acad. Nat. Sci. Philad., 1889, pl. iv, fig. 1.

Several specimens received from Mr. T. G. Goslin, collected in summer. Nos. 2404, 2406. A widely distributed, cosmotropical spider.

EPEIRIDÆ.

**Cyclosa caudata** Hentz.

*Epeira caudata* Hentz, Journ. Bost. Soc. Nat. Hist., vi, p. 23, pl. iii, figs. 14, 14a, 14b, 1850.

*Cyclosa conica* Emerton, Trans. Conn. Acad., vi, p. 321, pl. xxxiv, fig. 3, 1884.

Various specimens, several from Walsingham woods, 3 May, on trees; two from Tucker's Island, 3 May. Distributed over the United States and Mexico. Nos. 2339, 2350, 2358.

**Argyropeira hortorum** Hentz. Silver Spider.

*Epeira hortorum* Hentz, Journ. Bost. Soc. Nat. Hist., v, p. 477, pl. xxxi, fig. 19, 1847.

*Argyropeira hortorum* Emerton, Trans. Conn. Acad., vi, p. 332, pl. xxxvii, figs. 29-32, 1884.

Three adults from Walsingham woods, 3 May, on trees; several young specimens. Occurs in the eastern United States, Mexico, and the West Indies. No. 2330.

**Nephila clavipes** Fabricius. Silk Spider.

*Aranea clavipes* Fabr., Entom. Syst., ii, p. 420, 1775.

*Nephila clavipes* Koch, Die Arachn., v, p. 31, pl. clii, fig. 355, 1839.

Several adults taken by Mr. T. G. Goslin, last summer. The largest has an expanse of 5.5 inches. This is the typical form, as is shown by Mr. F. O. P. Cambridge in a recent paper on spiders from the Bahama Islands (Ann. Mag. Nat. Hist., April, 1901, pp. 322-332).

Occurs along the South Atlantic coast, and the regions adjacent to the Caribbean Sea.

(The adults are found only in late summer and autumn. It is mentioned by the earliest settlers, 1610-1615.—A. E. V.) Nos. 2314, young; 2399, adult.

**SPARASSIDÆ.**

**Heteropoda venatoria** Linn. Great House Spider.

*Aranea venatoria* Linn., Syst. Nat., Ed. x, p. 1037, 1758.

*Ocypte murina* Koch, Die Arach., xii, p. 36, pl. ceceev, fig. 978, 1845.

Several specimens, one very young. A common cosmopolitan spider, occurring in the extreme southern portions of the United States. (Found in outhouses and sometimes in dwellings. The largest are 4.50 inches across the outstretched legs. It is a very active running spider.—A. E. V.) Nos. 2305, 2306, 2317, 2342.

**LYCOSIDÆ.**

**Lycosa atlantica** Marx.

*Lycosa atlantica* Marx, Proc. Acad. Nat. Sci., Philad., 1889, p. 100, pl. iv, fig. 4.

Several specimens; one from Hungry Bay, April, under stones; another from the mouth of Tucker's Island cave, May 3. It is very possibly the same as *Lycosa fusca* Keys., described from Cuba in 1877. Nos. 2307, 2325, 2357, 2405.

**OXYOPIDÆ.**

**Oxyopes salticus** Hentz.

*Oxyopes salticus* Hentz, Jour. Bost. Soc. Nat. Hist., v, p. 196, pl. xvi, fig. 10, 1845.

Two immature specimens. Occurs from the southern United States to Brazil. No. 2345.

**ATTIDÆ.**

**Wala vernalis** Peckham. Jumping Spider.

*Anoka vernalis* Peck., Proc. Zoöl. Soc. London, 1893, p. 701.

*Anoka vernalis* Peck., Occ. Pap. Nat. Hist. Soc. Wis., vol. ii, no. 2, pl. xiii, fig. 3, 1894.

One female collected by Mr. T. G. Goslin in summer. No. 2410. Described from Jamaica, but now known from many parts of the West Indies.



**Tapinattus melanognathus** Lucas.      Jumping Spider.

*Salticus melanognathus* Lucas, Hist. Nat. d'Iles Canar., ii, p. 29, 1839.

*Menemerus melanognathus* Marx, Proc. Acad. Nat. Sci., Philad., 1889, p. 99, pl. iv, fig. 3.

One specimen. A cosmotropical spider, found in Florida and California. No. 2313.

**Plexippus paykulli** Aud. and Sav.      Larger Jumping Spider.

*Attus paykulli* A. and S., Descrip. de l'Égypte, xxii, p. 172, 1827.

*Menemerus paykulli* Marx, Proc. Acad. Nat. Sci., Philad., 1889, p. 99, pl. ii, fig. 2.

A number of specimens; one feeding on a *Tegenaria derhami*, 20 April. A very common cosmotropical spider, not rare in the southern United States. Nos. 2310-12, 2359, 2402.

#### ACARINA.

**Actineda agilis** Banks.      Mite.

*Actineda agilis* Bks., Trans. Amer. Entom. Soc., 1894, p. 211.

Two specimens, one from Castle Island, under stones, 24 April. Previously known only from the eastern United States. No. 2379.

**Rhyncholophus**, sp.      Mite.

Two specimens of a small, undescribed species. No. 2380.

**Holostaspis**, sp.

Two specimens and one young, probably of the same species. The American forms of this genus have not been studied. No. 2381.